WHAT IS CLAIMED IS:

1. An electronic component production method for subjecting an electronic component to burn-in, in which a load equivalent to a predetermined load defined by a burn-in temperature, a burn-in voltage, and a prescribed burn-in time is applied to the electronic component, said electronic component production method comprising:

a first step of maintaining the temperature of the electronic component at a predetermined temperature which is lower than the burn-in temperature;

a second step of applying constant power to the electronic component to increase the temperature of the electronic component from the predetermined temperature to the burn-in temperature; and

a third step of comparing an actual voltage which is applied to the electronic component at the burn-in temperature with the burn-in voltage, and correcting the prescribed burn-in time based on the difference therebetween to determine a corrected burn-in time, and applying the constant power to the electronic component for the corrected burn-in time.

2. An electronic component production method according to claim 1, wherein, in the second step, the constant power is applied to the electronic component via a probing unit having known thermal resistance and the applied constant power is defined so that the difference between the burn-in temperature and the predetermined temperature matches the product of the thermal resistance and the constant power.

3. An electronic component production method according to claim 1, wherein, in the third step, the corrected burn-in time is given by [(the burn-in voltage)^A/(the actual voltage)^A] × the burn-in time, where A is a constant.

4. An electronic component production method according to claim 3, wherein, in the first step, the predetermined temperature is higher than a normal temperature and the electronic component is first heated from the normal temperature

to the predetermined temperature and then maintained at the predetermined temperature.

5. An electronic component production method according to claim 3, wherein, in the second step, the constant power is applied to the electronic component via a probing unit having known thermal resistance and the applied constant power is defined so that the difference between the burn-in temperature and the predetermined temperature matches the product of the thermal resistance and the constant power.

6. An electronic component production method according to claim 1, wherein, in the first step, the predetermined temperature is higher than a normal temperature and the electronic component is first heated from the normal temperature to the predetermined temperature and then maintained at the predetermined temperature.

7. An electronic component production method according to claim 6, wherein, in the second step, the constant power is applied to the electronic component via a probing unit having known thermal resistance and the applied constant power is defined so that the difference between the burn-in temperature and the predetermined temperature matches the product of the thermal resistance and the constant power.

8. An electronic component production method according to claim 7, wherein, in the third step, the corrected burn-in time is given by [(the burn-in voltage)^A/(the actual voltage)^A] × the burn-in time, where A is a constant.

9. A burn-in apparatus for subjecting an electronic component to burn-in, in which a load equivalent to a predetermined load defined by a burn-in temperature, a burn-in voltage, and a prescribed burn-in time is applied to the electronic component, said burn-in apparatus comprising:

a constant-power applying unit for applying constant power to the electronic component; and

a burn-in control unit for controlling the operation of the constant-power applying unit,

wherein the burn-in control unit executes at least a first control step of driving the constant-power applying unit to apply the constant power to the electronic component to increase the temperature of the electronic component from a predetermined temperature to the burn-in temperature, and a second control step of comparing an actual voltage which is applied to the electronic component at the burn-in temperature with the burn-in voltage, and correcting the prescribed burn-in time based on the difference therebetween, so that the electronic component is subjected to burn-in at the burn-in temperature for the corrected burn-in time.

10. A burn-in apparatus according to claim 9, further comprising a probing unit having known thermal resistance,

wherein the constant power is applied to the electronic component via the probing unit, and the applied constant power is defined so that the difference between the burn-in temperature and the predetermined temperature matches the product of the thermal resistance and the constant power.

11. A burn-in apparatus according to claim 10, wherein, in the second control step, the burn-in control unit calculates [(the burn-in voltage)^A/(the actual voltage)^A] × the burn-in time, where A denotes a constant, to determine the corrected burn-in time, and the electronic component is subjected to burn-in for the corrected burn-in time.

12. A burn-in apparatus according to claim 9, wherein, in the second control step, the burn-in control unit calculates [(the burn-in voltage)^A/(the actual voltage)^A] × the burn-in time, where A denotes a constant, to determine the corrected burn-in time, and the electronic component is subjected to burn-in for the corrected burn-in time.